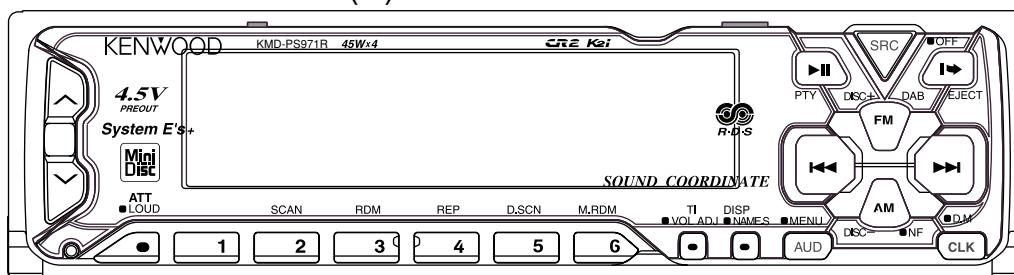


# KMD-PS971R/X92

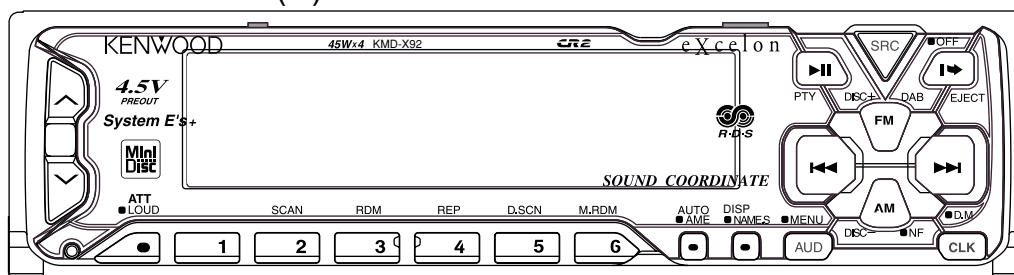
## SERVICE MANUAL

Refer to the service manual "X92-3390-00,0-01\_X92-3560-00,X92-3580-00" (B51-7461-10) for MECHANISM ASSY's information.

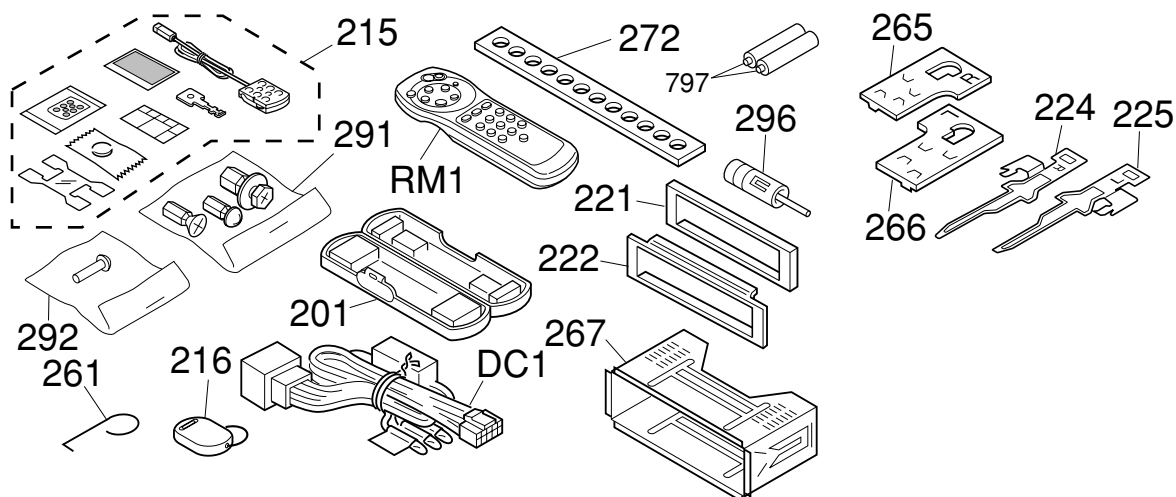
KMD-PS971R (E)

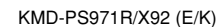


KMD-X92 (K)



The following reference numbers with accessory parts are the same reference numbers used on EXPLODED VIEW and PARTS LIST.





# KMD-PS971R/X92

## COMPONENT DESCRIPTION

### SWITCH UNIT (X13-9710-10)

REF. No.	FUNCTION	OPERATION
Q1	CONTROL SW BETWEEN ED1 to IC1	Works when Q5's base level comes "H".
Q2	REMOTE CONTROLLER POWER SW	Works when the base level comes "L" during power on.
Q3	BRIGHTNESS CONTROL	Adjusts brightness with pulse width.
Q5	CONTROL SW BETWEEN ED1 to IC1	Works when the base level comes "H".
Q6,7	ILLUMINATION SW	Make illumination-on when the base levels comes "H".
Q8	CONTROL SW BETWEEN ED1 to IC1	Works when Q5's base level comes "H".

### ELECTRIC UNIT (X25-848x-xx)

REF. No.	FUNCTION	OPERATION
Q3	5V SW	Works when the base level comes "L".
Q4	AUDIO 8V AVR	Works when Q56's base level comes "H".
Q5,6	P.ON 14V SW	Work when the base levels come "H".
Q8-11	ILLUMINATION SW	Works when Q9's base level comes "H".
Q12	DIMMER DETECTION	Works when the base level comes "H" during illumination comes on.
Q13,14	DC/DC CONVERTER +B SW	Work when Q14's base level comes "H".
Q21,22	P-ANT. SW	Work when Q22's base level "H" during FM or AM signal is received.
Q23	P-CON. SW	Works when Q26's base level comes "H".
Q24,25	P-CON. SW PROTECTION	Work when the P-CON. output volume level comes down.
Q26	P-CON. SW	Works when the base level comes "H".
Q28	BACK-UP DETECTION	Works when the momentary power down is detected.
Q29	ACC DETECTION	Works when ACC is turned off.
Q30	AUDIO MUTE DRIVER	Makes mute turns on when the base level comes "L".
Q32	SPECTRUM ANALYZER AGC	Controls spectrum analyzer level.
Q33	E-VOL. MUTE SW	Makes mute turns on when the base level comes "H".
Q34-37	AUDIO MUTE SW	Makes mute turns on when the base level comes "H".
Q38	SVR SW	Works when momentary power down is detected.
Q43,44	NOISE DETECTION TIME CONSTANT SW	Q43's base comes "L" during searching, and comes "H" during tuner signal is received.
Q45	K2I WIDE/NARROW SW	Makes mode to the forced wide when the base level comes "H".
Q48,49	AM +B SW	Works during AM signal is received.
Q50,51	FM +B SW	Works during FM signal is received.
Q52	VOLTAGE SW	Works when MD plays.
Q53,54	AUDIO MUTE SW	Makes mute turns on when the base level comes "H".
Q56,57	AUDIO 8V AVR	Work when Q56's base level comes "H".
Q58	EXTERNAL AMPLIFIER CONTROL SW	Works when the base level comes "L".
Q59	PANEL SW	Works when the base level comes "L".

# KMD-PS971R/X92

## MICROCOMPUTER'S TERMINAL DESCRIPTION

### (X25-) IC1 : $\mu$ -COM

PORT No.	PORT NAME	I/O	FUNCTION	OPERATING CONDITION
1	CH CON	O	Changer control.	-
2	CH MUTE	I	Mute from the changer.	-
3	$\overline{\text{REQ H}}$	O	Hand shaking request to the changer.	-
4	ILL ON	O	Illumination.	-
5	$\overline{\text{MD/SRM}}$	O	MD or SRM.	-
6	$\overline{\text{PACK DET}}$	I	Disc detection.	-
7	$\overline{\text{LOS SW1}}$	I	Loading SW detection.	"L" : Loading starts.
8	MD+B	O	Power supply for MD.	"H" : SRM mechanism runs in MD mode.
9	VDD	-	Power supply.	-
10	X2	-	Main clock.	-
11	X1	-	Main clock.	-
12	VSS	-	GND.	-
13	XT2	-	Sub clock.	-
14	XT1	-	Sub clock.	-
15	$\overline{\text{RESET}}$	I	Reset.	"L" (3V) : Reset.
16	CH RST	O	Reset to the changer.	-
17	R CLK	I	RDS clock.	-
18	$\overline{\text{REQ C}}$	I	Hand shaking request from the changer.	-
19-21	N.C.	-	No connection.	-
22	SC REQ	O	Request from panel $\mu$ -com.	-
23	AVDD	-	Analogue power supply.	-
24	AVREF 0	-	Reference voltage.	-
25	PHONE(E)	I	Phone detection.	Less than 1V : Tel mute. More than 2.5V : Navigation mute.
26	SRM SW1	I	SRM positioning detection.	-
27	NOISE(E)	I	FM noise detection.	-
28	S METER	I	FM S-meter detection.	-
29	IF MODE	I	K2I IF detection.	"H" : Wide. "L" : Narrow.
30	N.C.	-	GND.	-
31	$\overline{\text{M MUTE R}}$	I	Rch mute request from MD mechanism.	-
32	$\overline{\text{M MUTE L}}$	I	Lch mute request from MD mechanism.	-
33	AVSS	-	Analogue GND.	-
34	EX. AMP	O	External amplifier control.	-
35	$\overline{\text{M RST}}$	O	Reset to MD mechanism.	-
36	AVREF 1	-	Reference voltage.	-
37	DATA C	I	Data line from the changer.	-
38	DATA H	O	Data line to the changer.	-
39	CH CLK	I/O	Clock line to the changer.	-
40	SC DATA	I/O	Data line from $\mu$ -com.	-
41	MC DATA	I/O	Data line to $\mu$ -com.	-
42	MC CLK	I/O	Clock to panel $\mu$ -com.	-
43	$\overline{\text{M STOP}}$	O	Stop request to MD mechanism.	-
44	BEEP	O	Beep.	-
45	PLL CE	O	Chip enable to PLL.	-
46	PLL DATA	O	Data line to PLL.	-
47	PLL CLK	O	Clock to PLL.	-
48	$\overline{\text{LOE SW}}$	I	Down SW detection.	"H" : Chucking.
49	EJECT	O	SW for MD mechanism and MD eject.	-
50	LOAD	O	MD loading.	-

# KMD-PS971R/X92

## MICROCOMPUTER'S TERMINAL DESCRIPTION

### (X25-) IC1 : $\mu$ -COM

PORT No.	PORT NAME	I/O	FUNCTION	OPERATING CONDITION
51	N.C.	-	No connection.	-
52	PAN 5V	O	Panel ON/OFF.	-
53	MC REQ	I/O	Lock SW.	-
54	P RST	O	Panel $\mu$ -com reset.	-
55	N.C.	-	No connection.	-
56	QUAL	I	RDS receiving.	-
57	R DATA	I	RDS data.	-
58	SRM SUB-	O	SRM mechanism sub motor.	-
59	SRM SUB+	O	SRM mechanism sub motor.	-
60	SRM DET	I	SRM mechanism detection.	-
61	SRM SW2	I	SRM eject positioning detection.	-
62	FM SD	I	FM SD.	-
63	N.C.	-	No connection.	-
64	AFC	O	Noise detection time constant SW.	"H" : Receiving. "L" : FM/AM seeking or AF searching.
65	N.C.	-	No connection.	-
66	WIDE	O	K2I forced wide.	-
67	NARROW	I/O	K2I forced narrow.	-
68	AM+B	O	AM power supply.	-
69	FM+B	O	FM power supply.	-
70,71	N.C.	-	No connection.	-
72	VSS	-	GND.	-
73	TYPE 0	I	Destination SW.	-
74	TYPE 1	I	Destination SW.	-
75	TYPE 2	I	Destination SW.	-
76	ST TYPE 0	I	Destination SW.	-
77	ST TYPE 1	I	Destination SW.	-
78	N.C.	-	No connection.	-
79	PRE MUTE	O	Pre mute.	"L" : Momentary power down.
80	N.C.	-	No connection.	-
81	VDD	-	Back-up 5V.	-
82	N.C.	-	No connection.	-
83	SVR	O	SVR.	"H" : Momentary power down or power off.
84	N.C.	-	No connection.	-
85	P MUTE	O	Power IC mute.	-
86	ANT CON	O	Antenna control.	"H" : Tuner or TI. "L" : Other modes.
87	IC2 SCK	O	IC2, IC5 and EEPROM clock line.	-
88	DIMMER	I	"SMALL" detection.	-
89	P-ON	O	Power control.	-
90	ACC DET	I	ACC detection.	-
91	N.C.	-	No connection.	-
92	P.ON	O	Power supply for circumference of $\mu$ -com.	-
93	B.U. DET	I	Momentary power down detection.	-
94	TEST	-	Test.	-
95	IC2 SDA	I/O	IC2, IC5 and EEPROM clock line.	-
96	MUTE	O	Mute.	-
97	SW5	O	5V power supply.	-
98	MS CL	O	Clock line to MD mechanism.	-
99	MS DA	I/O	Data line to MD mechanism.	-
100	N.C.	-	No connection.	-

# KMD-PS971R/X92

## TEST MODE

### (1) How to enter the test mode

1. Reset the unit while holding the "FM" and preset "6" keys depressed.
2. All indications light up at the moment when the test mode starts.

### (2) How to cancel from the test mode

1. Reset the unit while holding the preset "6" key.

(Note) The test mode is not canceled by turning ACC OFF, turning power OFF or causing momentary power down.

### (3) FM S-meter voltage adjustment

1. Enter the test mode.
2. While holding the preset "1" key depressed, press and hold the preset "6" key.
3. "ADJ OK" is displayed when the result is OK or "ADJ NG" is displayed when it is No Good.

### (4) AM SD voltage writing

1. Enter the test mode.
2. While holding the preset "1" key depressed, press and hold the preset "6" key to write the SD voltage data.

### (5) Forced Auto / Manual switching of K2I

1. Press and hold the TI key in the tuner mode to switch between AUTO and MANUAL.
2. The initial status is MANUAL, which is indicated by the lighting of the TI dots.

### (6) Forced Narrow/Wide switching of K2I

1. Press the preset "6" key in the tuner mode to switch between Forced Narrow and Wide.
2. The initial status is Wide, which is indicated by the lighting of the NEWS dots.

### (7) MD test mode

1. Track jumps to the following tracks in order from left by track-up key pressed.  
No.7, No.2, No.13, No.23, No.30, No.34, No.7(Returns to the start position).
2. Track down key will be one step down than currently playing track No.
3. When pressing preset "1" key, the track jumps to track No.28. When pressing preset "1" key again, the track jumps to track No.22.

### (8) Audio adjustments

1. The volume should be set to -10 dB (displayed as "30").
2. The bass/treble and balance/fader controls are set to full boost/full cut and full front/full rear respectively by single press of the UP/DOWN key.
3. The high-pass filter is set to Through/100Hz/200Hz by each press of the UP key, or to 200Hz/100Hz/Through by each press of the DOWN key.
4. Other adjustments are identical to normal operations.

### (9) Back-up current measurement

1. When the unit is reset while ACC is off (When the back-up power is on) or when ACC is turned off in the middle of test mode, the MUTE pin turns ON in 2 seconds instead of 15 seconds. (The panel/CD/MD mechanism is not activated at this time.)

# KMD-PS971R/X92

## TEST MODE

### (10) Simplified security code clear procedure (KMD-X92 only)

1. During the code request mode, while holding the "DISP" key depressed, press and hold the volume "UP" key for 3 seconds (so that "----" disappears).
2. Enter "KCAR" from the remote control unit.  
Press numeric key "5" 2 times and press the track "UP" key (to enter "K").  
Press numeric key "2" 3 times and press the track "UP" key (to enter "C").  
Press numeric key "2" 1 time and press the track "UP" key (to enter "A").      Press numeric key "7" 2 times and press the track "UP" key (to enter "R").
3. The security is canceled and the set enters the tuner mode.

### (11) MASK key writing procedure (When the EEPROM is in the initial status)

1. While holding the "FM" and preset "6" keys depressed, press "RESET" to enter the test mode.
2. Press and hold the "AUDIO" key for 1 second to enter the menu mode.
3. Press the "FM" or "AM" key to select "Mask key".
4. Press the track "UP/DOWN" key shortly so that "TRANSMIT1" is displayed.
5. Point the MASK key to the light sensor and press and hold the key for more than 0.5 second.
6. When "TRANSMIT2" is displayed, press and hold the MASK key again for more than 0.5 second.  
Note that the first and second counter codes are not compared at this time.
7. The writing operation is completed when "APPROVED" is displayed.  
At this time, the demonstration mode is set and the test mode is canceled.  
(Note) Leaving the unit for more than 30 minutes without writing the code causes an error and turns power off.

### (12) Procedure for canceling the MASK key request (when the unit is reset or the back-up power is turned off while the MASK key is enabled)

1. When the power is supplied and the unit is switched on, "TRANSMIT1" is displayed and the MASK key request mode starts.
2. Point the MASK key toward the light sensor and press and hold for more than 3 seconds (until the level indicator indicates the full condition).
3. When "TRANSMIT2" is displayed, press and hold the MASK key again for more than 3 seconds. If "TRANSMIT1" is displayed now, go back to step "2" and restart from there again.
4. When "APPROVED" is displayed, the MASK key is enabled and the set is turned on.

### (13) Procedure for MASK key initialization

1. While holding the "FM" and preset "6" keys, press "RESET" to enter the test mode.
2. "TRANSMIT1" is displayed and the MASK key request mode starts.  
At this time, the display shows "\*" "\*" in place of "[ ]".
3. Press the MASK key canceling remote control for more than 3 seconds.
4. When "TRANSMIT2" is displayed, press and hold the MASK key again for more than 3 seconds.
5. When "APPROVED" is displayed, the MASK key is canceled, the demonstration mode is set, the test mode is canceled.

### (14) MASK key all-clear procedure

1. While holding the "FM" and preset "6" keys, press "RESET" to enter the test mode.
2. Press and hold the "AUDIO" key for more than 1 second to enter the menu mode.
3. Press the Track "UP/DOWN" key to select "Mask key".

# KMD-PS971R/X92

## TEST MODE

4. Press and hold the "FM" or "AM" key for more than 2 seconds so that "TRANSMIT1" is displayed.
5. Point the MASK key canceling remote control toward the light sensor and press for more than 3 seconds (until the level indicator indicates the full condition).
6. When "TRANSMIT2" is displayed, press and hold the MASK key again for more than 3 seconds. If "TRANSMIT1" is displayed now, go back to step "5" and restart from there again.
7. When "APPROVED" is displayed, the EEPROM is cleared entirely and the condition in "(11) MASK key writing procedure (when the EEPROM is in the initial status)" returns.

## ADJUSTMENT (KMD-PS971R only)

### Item :

Separation

### Input Setting :

98.1MHz / 1KHz,  $\pm 40\text{KHz}$  dev / Pilot:  $\pm 6.0\text{KHz}$  dev / Selector: L or R / 60dB $\mu$ (ANT input)

### Output Setting :

Connect a AC voltmeter to speaker output (J1 of X25)

### Receiver setting :

FM98.1MHz / Forced narrow of the test mode (It is shown on previous pages)

### Alignment Point :

VR1 of X25

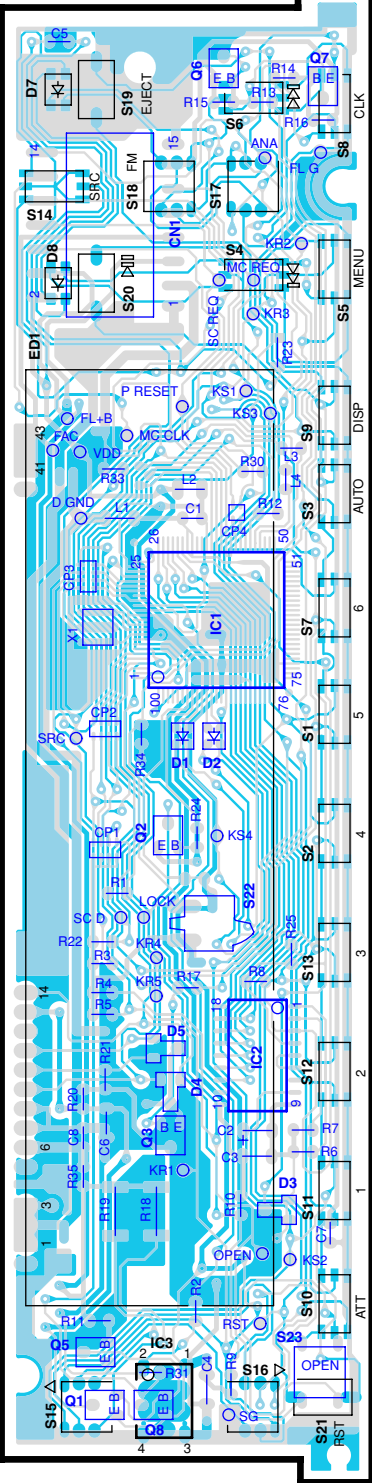
### Align for :

Adjust so that the crosstalk from Lch to Rch and Rch to Lch becomes minimum.

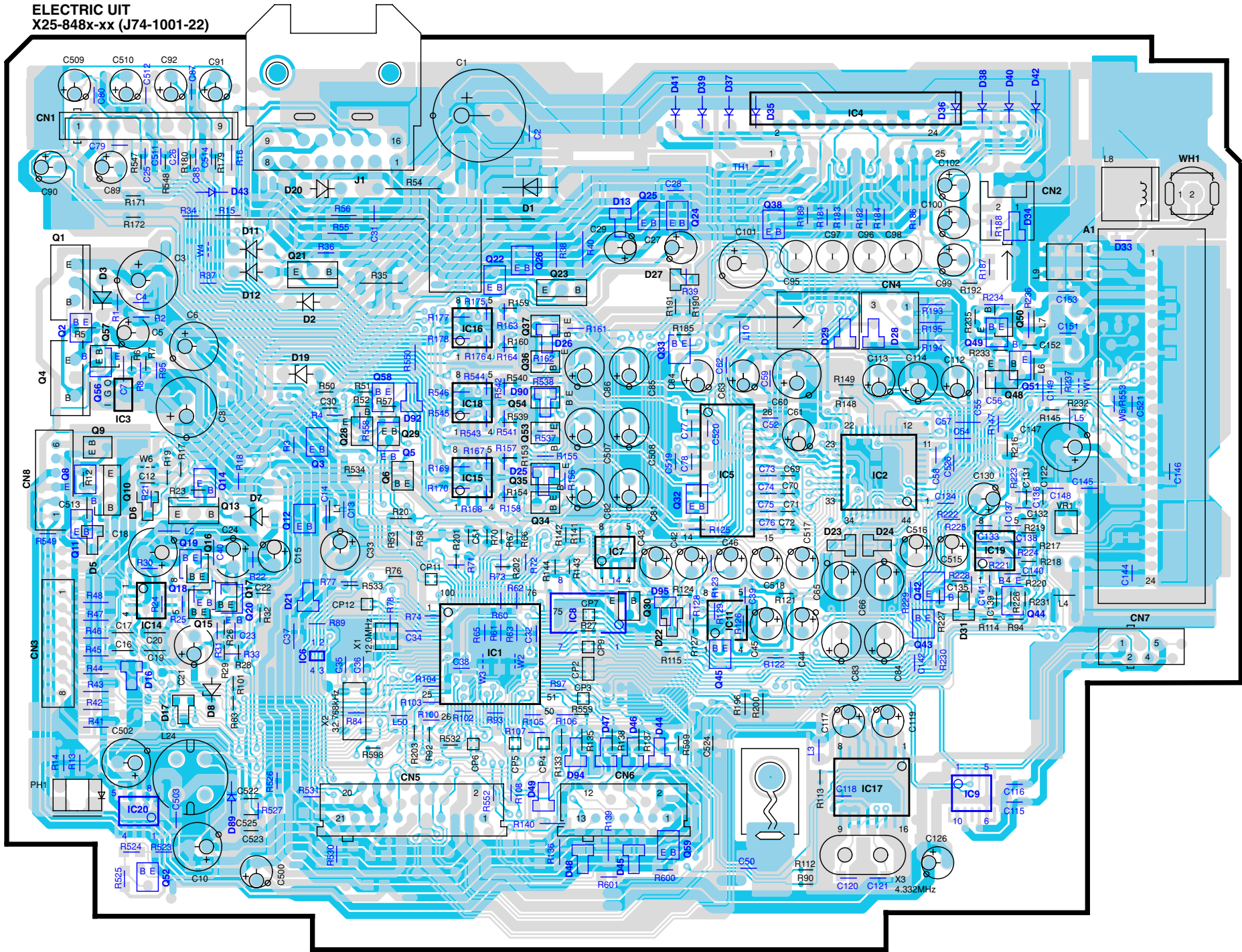


PC BOARD(Component side view)

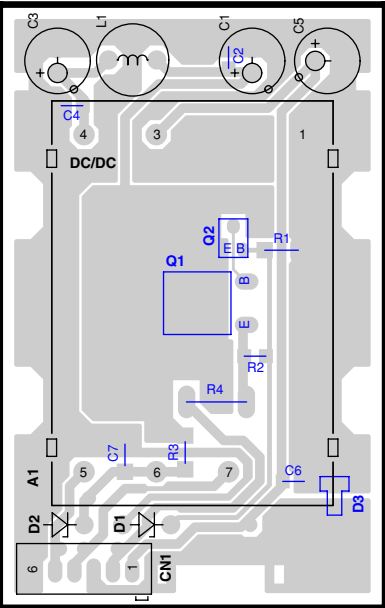
SWITCH UNIT  
X13-9710-10 (J74-0983-12)



ELECTRIC UIT  
X25-848x-xx (J74-1001-22)



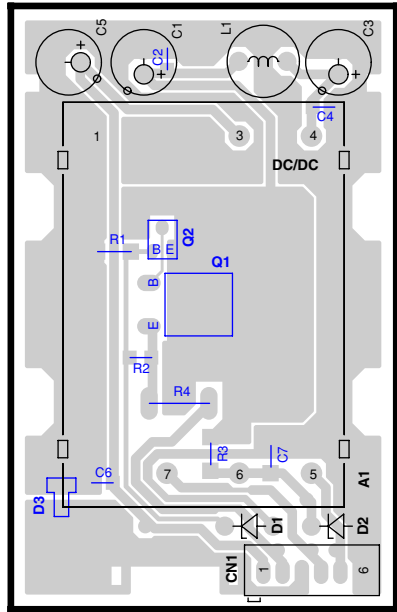
DAUGHTER UNIT  
X89-2410-10 (J74-1053-02)



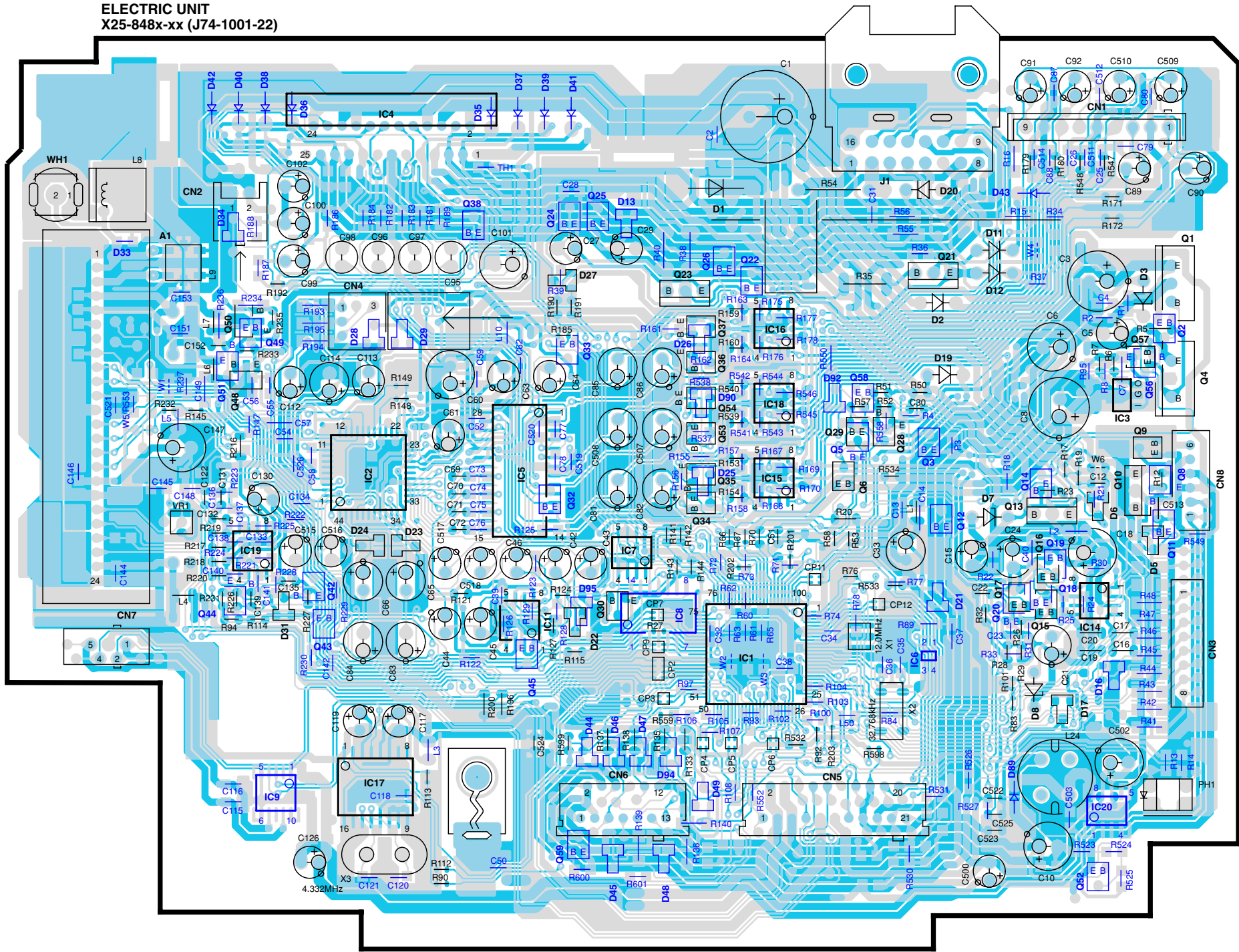


PC BOARD(Foil side view)

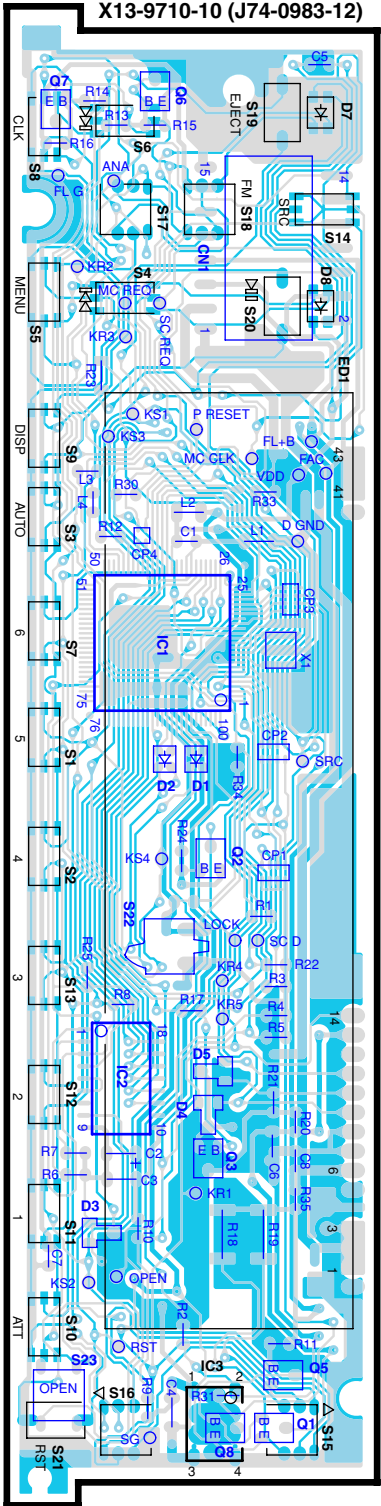
DAUGHTER UNIT  
X89-2410-10 (J74-1053-02)



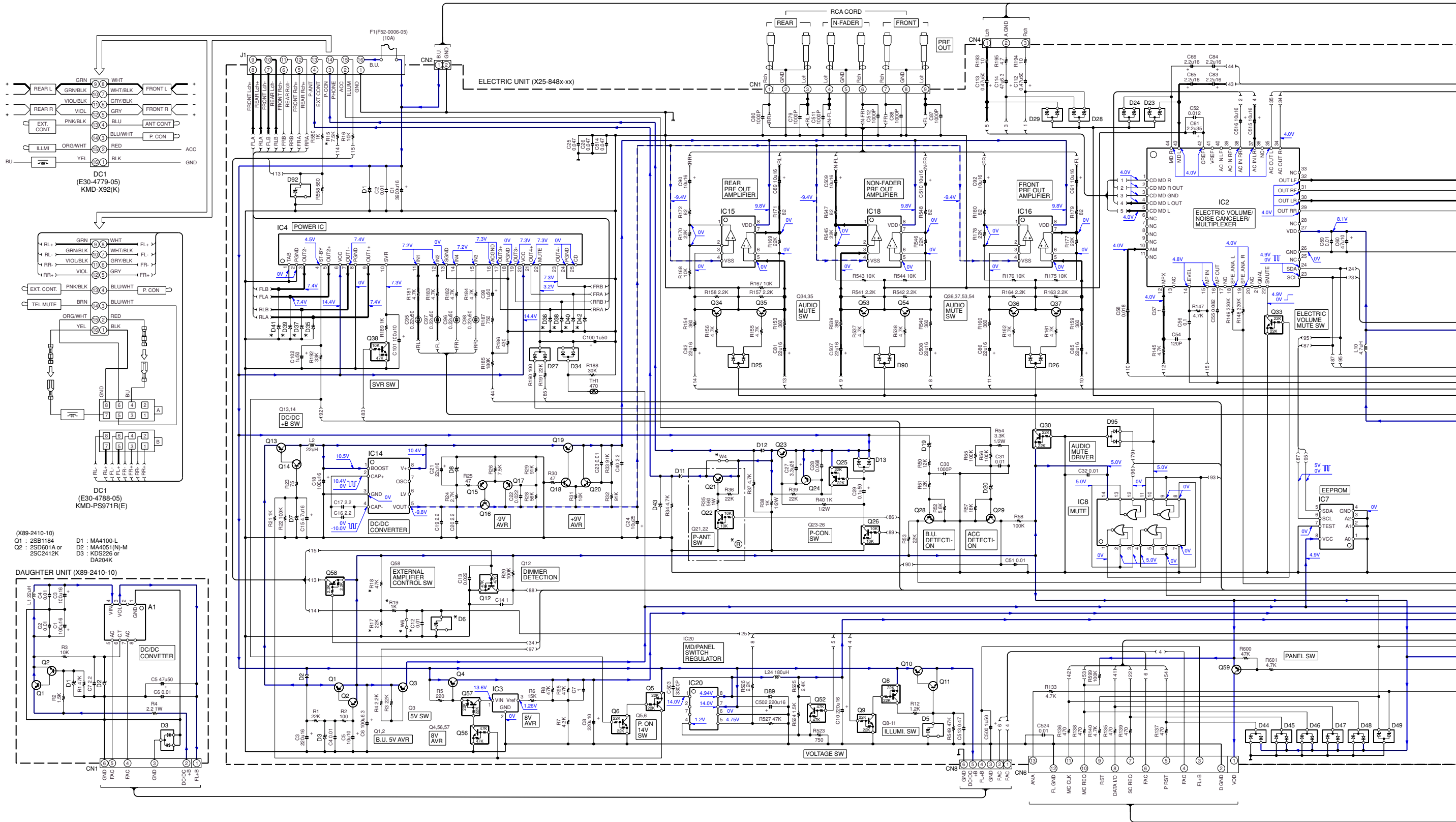
ELECTRIC UNIT  
X25-848x-xx (J74-1001-22)



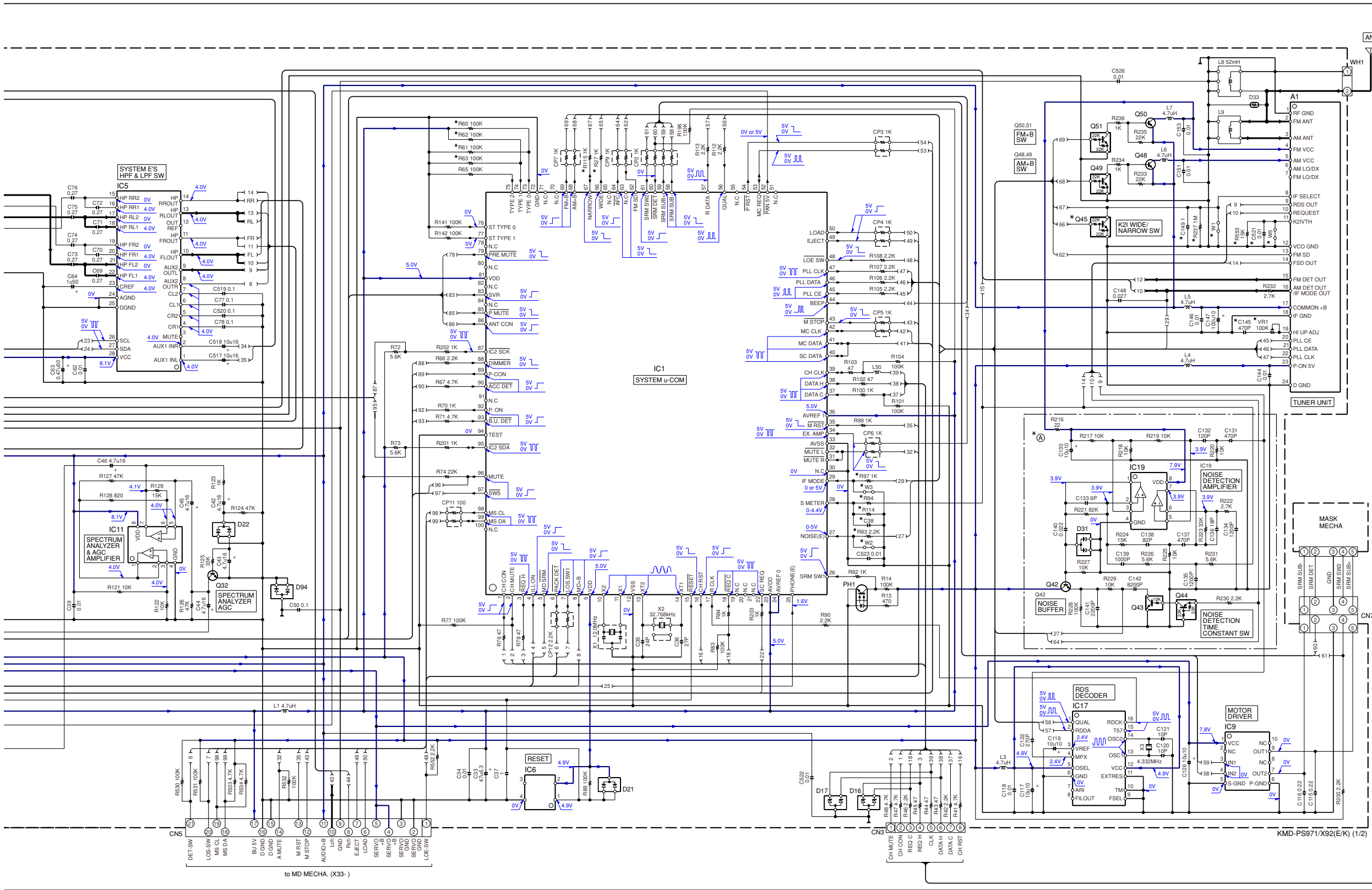
SWITCH UNIT  
X13-9710-10 (J74-0983-12)



Refer to the schematic diagram for the value of resistors and capacitors.







- (X25-848x-xx)
- IC1 : UPD784217GC106
  - IC2 : TDA7400
  - IC3 : M5237ML
  - IC4 : TDA7386
  - IC5 : TDA7401
  - IC6 : S-80830AANNP
  - IC7 : BR24C01AF
  - IC8 : TC74HC02AF
  - IC9 : LB1930M
  - IC11,15,16,18,19 : NJM4555M-TE2
  - IC14 : TC7662BEOA
  - IC17 : TDA7479D
  - IC20 : LM2675M-ADJ
- Q1,4 : 2SB1565(E,F)
- Q2,11,14,16,18,20,28,29,32,34-37,42,53,54 : 2SD601A
- Q3,15,17,19,24,59 : 2SB709A
- Q5,8,25,30,44,57 : KRA103S
- Q6,9,33,45,49,51 : KRC103S
- Q10,13 : 2SB1443
- Q12,52,56 : KRC104S
- Q21,23 : 2SB1277(Q,R)
- Q22,26 : DTC114EK
- Q36 : KRC107S
- Q43 : UN2215
- Q48,50 : 2SB1188(Q,R)
- Q58 : DTA123JK
- D1 : RM102LF
- D2,11,12 : AM01Z
- D3,8,19 : MA4056(N)-M
- D5 : MA3220-H
- D6 : HZM4.7N(B2)
- D7 : MA4110(N)-M
- D13,25-27,90,95 : KDS181
- D16,17,49 : MA3062WA
- D20 : MA4052(N)-M
- D21,31,34 : KDS184
- D22,44-48,94 : DA204K
- D23,24,28,29 : RD6.8MW
- D33 : SA-C2012-101TB
- D35-43 : ISR154-400
- D89 : UT1GWJ44
- D92 : MA3056-M

(X25-848x-xx)

MODEL NAME	UNIT No.	A	B	Q45	D6	D35-42
KMD-X92(K)	0-10	NO	YES	NO	NO	YES
KMD-PS971(R)	2-71	YES	NO	YES	YES	NO

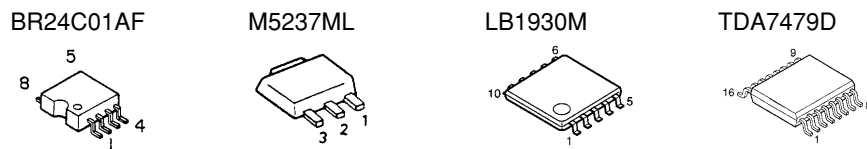
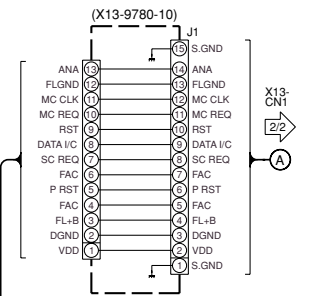
  

MODEL NAME	C12,145	C38	R15,17-19,27,60,62,93,97,115,237,553
KMD-X92(K)	149,521	C38	NO
KMD-PS971(R)	YES	4700P	NO
		1000P	YES

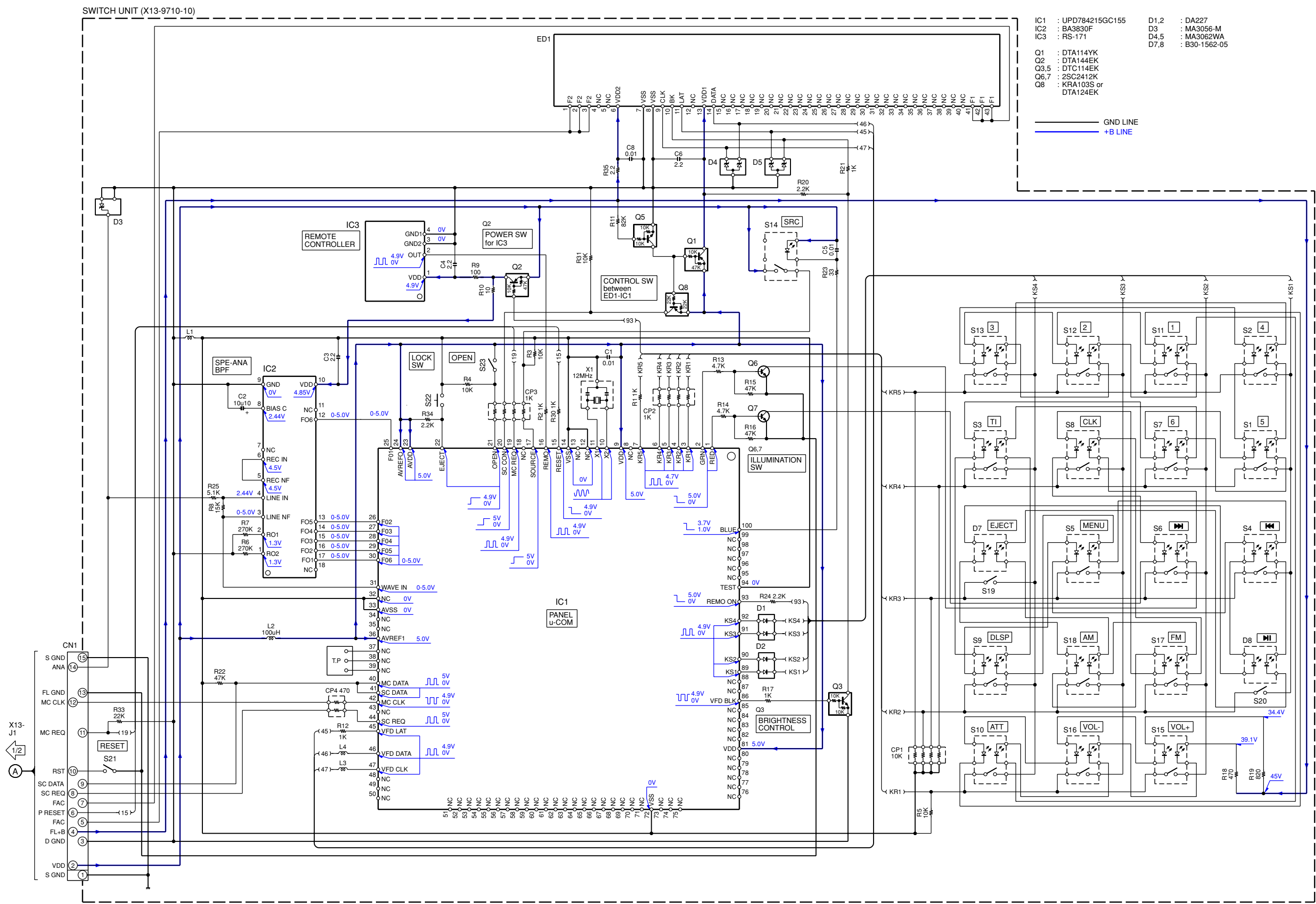
  

MODEL NAME	R61	R63	R94	R114	VR1	W1-3	W4
KMD-X92(K)	YES	22K	160K	NO	NO	YES	NO
KMD-PS971(R)	NO	27K	120K	YES	NO	NO	YES

— SIGNAL LINE  
— GND LINE  
— +B LINE  
— -B LINE

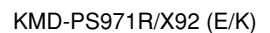


CAUTION: For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list). Δ indicates safety critical components. For continued protection against risk of fire, replace only with same type and rating fuse(s). To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.



KMD-PS971/X92(E/K) (2/2)

## EXPLODED VIEW (UNIT)



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# KMD-PS971R/X92

## PARTS LIST

\* New Parts

Parts without **Part No.** are not supplied.

Les articles non mentionnés dans le **Parts No.** ne sont pas fournis.

Teile ohne **Parts No.** werden nicht geliefert.

Ref. No.	A d d	N e w	Parts No.	Description	Desti- nation	Ref. No.	A d d	N e w	Parts No.	Description	Desti- nation
<b>KMD-PS971R/X92</b>						247	3D		D14-0723-04	ROLLER	
200	2D	*	A10-4536-13	CHASSIS CALKING ASSY		248	3D		D14-0716-14	ROLLER	
201	1C	*	A02-1489-03	PLASTIC CABINET ASSY		249	2D		E30-4802-05	CORD WITH DIN CONNECTOR	
202	1C	*	A10-4671-02	CHASSIS ASSY		250	2D		E30-4706-05	CORD WITH CONNECTOR	
203	1D		A10-4315-04	CHASSIS CALKING ASSY		251	2D		E30-4796-05	CORD WITH PINPLUG	
204	1C		A10-4317-04	CHASSIS CALKING ASSY		△DC1	1C		E30-4779-05	DC CORD	K
						△DC1	1C		E30-4788-05	DC CORD	E1
205	1D		A10-4319-04	CHASSIS CALKING ASSY		252	2D		F09-1644-04	SHEET	
206	1D		A10-4321-04	CHASSIS CALKING ASSY		253	3C		F09-1292-04	SHEET	
207	1D	*	A10-4674-02	CHASSIS ASSY		254	1C		F09-1244-04	SHEET	
208	1C	*	A10-4676-02	CHASSIS ASSY		255	2D		F29-0049-05	INSULATING COVER	
209	2D		A10-4534-23	CHASSIS ASSY		△F1	2D		F52-0006-05	FUSE (MINI BLADE TYPE) (10A)	
210	3C		A22-2298-43	SUB PANEL ASSY		△F1	2D		F52-0011-05	FUSE (MINI BLADE TYPE) (10A)	
211	3D	*	A10-4665-03	CHASSIS ASSY	E1						
211	3D	*	A10-4666-03	CHASSIS ASSY	K	256	3C		G11-1797-04	CUSHION	
212	2C		A46-1652-01	REAR COVER		258	2D	*	G01-2984-04	EXTENSION SPRING	
213	1D		A52-0742-12	TOP PLATE		259	1D		G01-2818-24	EXTENSION SPRING	
214	3C	*	A21-4011-03	DRESSING PANEL		260	3C		G01-2920-14	TORSION COIL SPRING	
				REMOTE CONTROLLER ASSY (RC-700)	E1	261	1C		G01-2924-04	TORSION COIL SPRING	
216	1C		A70-0886-15	REMOTE CONTROLLER ASSY (MASK)	E1	262	2D		G11-1850-04	CUSHION	
PA1	3C	*	A64-1877-02	PANEL ASSY	K	263	2C	*	G11-1876-04	CUSHION	
PA1	3C	*	A64-1878-02	PANEL ASSY	E1	-		*	H10-4702-02	POLYSTYRENE FOAMED FIXTURE	
RM1	1C		A70-0894-05	REMOTE CONTROLLER ASSY	K	-		*	H10-4703-02	POLYSTYRENE FOAMED FIXTURE	
221	1C		B07-2146-03	ESCUTCHEON ASSY (EBONY)		-			H21-1123-04	PROTECTION SHEET	
222	1C		B07-2183-02	ESCUTCHEON (BLACK)	K	-			H25-0329-04	PROTECTION BAG (280X450X0.03)	K
223	3C		B10-3147-01	FRONT GLASS	K	-			H25-0337-04	PROTECTION BAG (180X300X0.03)	
223	3C		B10-3148-01	FRONT GLASS	E1	-			H25-1108-04	PROTECTION BAG (100X300X0.03)	
-			B46-0100-50	WARRANTY CARD		-			H25-1111-04	PROTECTION BAG (280X450X0.03)	E1
-			B46-0606-04	ID CARD	K	-		*	H54-1660-03	ITEM CARTON CASE (KMD-X92)	K
-			B46-0631-03	USER CARD	K	-		*	H54-1661-03	ITEM CARTON CASE (KMD-PS971R)	E1
-			B46-0632-04	ID CARD (MASK-KEY)	E1						
-			B58-1278-04	CAUTION CARD (INSTAL)		264	2C	*	J19-4979-02	HOLDER	
-			B58-1309-04	CAUTION CARD (INSTAL)	E1	265	1C		J19-4875-04	BRACKET (R)	K
-			B59-0742-00	SUB-INSTRUCTION MANUAL	E1	266	1C		J19-4876-04	BRACKET (L)	K
-		*	B64-1618-00	INST. MANUAL (ENG,FRE,SPA)	K	267	1C		J21-9491-03	MOUNTING HARDWARE ASSY	
-		*	B64-1619-00	INST. MANUAL (ENGLISH)	E1	268	1D	*	J21-9344-03	MOUNTING HARDWARE	
-		*	B64-1620-00	INST. MANUAL (FRE,GER,DUT)	E1	271	1D		J31-1035-24	COLLAR	
-		*	B64-1621-00	INST. MANUAL (ITA,SPA,POR)	E1	272	1C		J54-0606-04	STAY	K
224	1C		D10-4301-14	LEVER (R)		279	3C	*	J90-0923-14	GUIDE	
225	1C		D10-4302-14	LEVER (L)		FPC2	1D		J84-0062-23	FLEXIBLE PRINTED WIRING BOARD	
226	3C		D10-4299-03	ARM		FPC3	3C		J84-0090-03	FLEXIBLE PRINTED WIRING BOARD	
227	3C		D10-4300-24	LEVER		280	2C	*	K24-3540-03	KNOB	
230	1D	*	D10-4448-03	ARM ASSY		281	2C	*	K24-3541-04	KNOB (SRC)	
231	1D	*	D10-4449-04	ARM ASSY		282	2C	*	K25-1095-03	KNOB (VOL UP/DOWN)	
232	2D		D13-1302-64	GEAR ASSY		283	2C	*	K25-1096-03	KNOB (1/2/3)	
233	2D		D13-1306-24	GEAR		284	2C	*	K25-1097-03	KNOB (4/5/6)	
234	2D	*	D13-1403-03	GEAR		285	3C	*	K25-1098-03	KNOB (FM/AM/PTY/EJECT)	
235	2D		D13-1404-04	GEAR		286	2C	*	K25-1099-03	KNOB (AUD/CLK)	
236	2D		D13-1453-14	GEAR ASSY		287	2C	*	K29-7010-04	KNOB ASSY	
239	1D		D13-1312-34	GEAR		291	1C		N99-1652-05	SCREW SET (JAPANESE CAR)	K
240	1D		D13-1313-04	GEAR		292	1C	*	N99-1683-05	SCREW SET (DISPLAY STAND)	
243	1D		D13-1456-13	GEAR ASSY		A	1D		N09-4184-05	MACHINE SCREW (M2X2)	
244	1D		D13-1455-13	GEAR ASSY		B	1D		N09-4185-05	MACHINE SCREW (M2X2)	
246	1D		D14-0678-04	ROLLER ASSY		C	1D		N09-4218-05	MACHINE SCREW (M2X3)	

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K : KMD-X92

△ indicates safety critical components.

# KMD-PS971R/X92

## PARTS LIST

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(X13-9710-10)


Ref. No.	A d d	N e w	Parts No.	Description	Desti- nation
D	2D	*	N09-4340-05	MACHINE SCREW	
E	1D	*	N09-4381-05	MACHINE SCREW (M2X2)	
F	2D		N19-2022-04	FLAT WASHER	
G	2D		N19-2058-04	FLAT WASHER	
H	2D		N19-2062-04	FLAT WASHER	
L	1D		N19-2103-04	FLAT WASHER	
M	3C		N35-2003-45	BINDING HEAD MACHINE SCREW	
N	3C		N38-2030-45	PAN HEAD MACHIN SCREW	
P	3C		N67-3005-46	PAN HEAD SEMS SCREW	
Q	2C		N80-2004-46	PAN HEAD TAPTITE SCREW	
R	2D		N80-2008-45	PAN HEAD TAPTITE SCREW	
S	1D		N83-3005-46	PAN HEAD TAPTITE SCREW	
U	3D		N38-2020-46	PAN HEAD MACHIN SCREW	
PS1	1D	*	S68-0829-05	PUSH SWITCH	
296	1C		T90-0523-05	ANTENNA ADAPTOR	E1
296	1C		T90-0534-05	ANTENNA ADAPTOR	E1
PM1	1D		T42-0752-34	MOTOR ASSY	
ME1	3C	*	X92-3580-00	MECHANISM ASSY	
<b>SWITCH UNIT (X13-9710-10)</b>					
D7 ,8		*	B30-1562-05	LED	
C1			CK73FB1H103K	CHIP C 0.010UF K	
C2			C92-0628-05	CHIP-TAN 10UF 10WV	
C3 ,4			CK73EB1C225K	CHIP C 2.2UF K	
C5			CK73FB1H103K	CHIP C 0.010UF K	
C6			CK73EB1C225K	CHIP C 2.2UF K	
C8			CK73FB1H103K	CHIP C 0.010UF K	
CN1		*	E59-0833-05	RECTANGULAR PLUG	
L1			L92-0302-05	CHIP FERRITE	
L2			L40-1015-34	SMALL FIXED INDUCTOR (100UH)	
L3 ,4			L33-0385-05	SMALL FIXED INDUCTOR	
X1			L78-0683-05	RESONATOR (12MHZ)	
CP1			R90-0714-05	MULTI-COMP 10K X4	
CP2 ,3			R90-0724-05	MULTI-COMP 1K X4	
CP4			R90-1022-05	MULTI-COMP 470 X2	
R1 ,2			RK73FB2A102J	CHIP R 1.0K J 1/10W	
R3 -5			RK73FB2A103J	CHIP R 10K J 1/10W	
R6 ,7			RK73FB2A274J	CHIP R 270K J 1/10W	
R8			RK73FB2A153J	CHIP R 15K J 1/10W	
R9			RK73FB2A101J	CHIP R 100 J 1/10W	
R10			RK73FB2A100J	CHIP R 10 J 1/10W	
R11			RK73FB2A823J	CHIP R 82K J 1/10W	
R12			RK73FB2A102J	CHIP R 1.0K J 1/10W	
R13 ,14			RK73FB2A472J	CHIP R 4.7K J 1/10W	
R15 ,16			RK73FB2A473J	CHIP R 47K J 1/10W	
R17			RK73FB2A102J	CHIP R 1.0K J 1/10W	
R18			R92-1215-05	CHIP R 470 J 1/2W	
R19			R92-2023-05	CHIP R 820 J 1/2W	
R20			RK73FB2A222J	CHIP R 2.2K J 1/10W	
R21			RK73FB2A102J	CHIP R 1.0K J 1/10W	
R22			RK73FB2A473J	CHIP R 47K J 1/10W	
R23			RK73EB2B330J	CHIP R 33 J 1/8W	

Ref. No.	A d d	N e w	Parts No.	Description	Desti- nation
R24			RK73FB2A222J	CHIP R 2.2K J 1/10W	
R25			RK73FB2A512J	CHIP R 5.1K J 1/10W	
R30			RK73FB2A102J	CHIP R 1.0K J 1/10W	
R31			RK73FB2A103J	CHIP R 10K J 1/10W	
R33			RK73FB2A223J	CHIP R 22K J 1/10W	
R34			RK73FB2A222J	CHIP R 2.2K J 1/10W	
R35			RK73FB2A2R2J	CHIP R 2.2 J 1/10W	
S1 -13			S70-0856-05	TACT SWITCH	
S14			S70-0857-05	TACT SWITCH	
S15 -18			S70-0860-05	TACT SWITCH	
S19 -21			S70-0851-05	TACT SWITCH	
S22			S68-0822-05	PUSH SWITCH	
S23		*	S70-0864-05	TACT SWITCH	
D1 ,2			DA227	DIODE	
D3			MA3056-M	ZENER DIODE	
D4 ,5			MA3062WA	ZENER DIODE	
ED1			CN1914M	FLUORESCENT INDICATOR TUBE	
IC1			UPD784215GC155	MI-COM IC	
IC2			BA3830F	ANALOGUE IC	
IC3			RS-171	ANALOGUE IC	
Q1			DTA114YK	DIGITAL TRANSISTOR	
Q1			UN2114	DIGITAL TRANSISTOR	
Q2			DTA144EK	DIGITAL TRANSISTOR	
Q2			UN2113	DIGITAL TRANSISTOR	
Q3			DTC114EK	DIGITAL TRANSISTOR	
Q3			UN2211	DIGITAL TRANSISTOR	
Q5			DTC114EK	DIGITAL TRANSISTOR	
Q5			UN2211	DIGITAL TRANSISTOR	
Q6 ,7			2SC2412K	TRANSISTOR	
Q6 ,7			2SD601A	TRANSISTOR	
Q8			DTA124EK	DIGITAL TRANSISTOR	
Q8			KRA103S	DIGITAL TRANSISTOR	
Q8			UN2112	DIGITAL TRANSISTOR	
<b>SUB-CIRCUIT UNIT (X13-9780-10)</b>					
310		2C	* B03-3056-12	DRESSING PLATE	
J1			E58-0895-05	RECTANGULAR RECEPTACLE	
FPC1		2C	J84-0106-02	FLEXIBLE PRINTED WIRING BOARD	
Y		2C	N38-2025-46	PAN HEAD MACHIN SCREW	
<b>ELECTRIC UNIT (X25-848x-xx)</b>					
C1			C90-2822-05	ELECTRO 3900UF 16WV	
C2			CK73FB1H103K	CHIP C 0.010UF K	
C3			C90-2926-05	ELECTRO 220UF 16WV	
C4			CK73FB1H103K	CHIP C 0.010UF K	
C5			C90-2594-05	ELECTRO 10UF 10WV	
C6			CE04CW0J101M	ELECTRO 100UF 6.3WV	
C7			CK73EB1C105K	CHIP C 1.0UF K	
C8			CE04CW1A221M	ELECTRO 220UF 10WV	
C10			C90-2980-05	ELECTRO 220UF 16WV	
C12			CK73FB1H103K	CHIP C 0.010UF K	E1
C13			CK73FB1H223K	CHIP C 0.022UF K	
C14			CK73EB1C105K	CHIP C 1.0UF K	

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# KMD-PS971R/X92

## PARTS LIST

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(X25-848x-xx)

Ref. No.	A d d	N e w	Parts No.	Description	Desti- nation	Ref. No.	A d d	N e w	Parts No.	Description	Desti- nation
C15			C90-2595-05	ELECTRO 4.7UF 16WV		C117			C90-2594-05	ELECTRO 10UF 10WV	
C16 ,17			CK73EB1C225K	CHIP C 2.2UF K		C118			CK73FB1H103K	CHIP C 0.010UF K	
C18			C90-2962-05	ELECTRO 100UF 16WV		C119			C90-2594-05	ELECTRO 10UF 10WV	
C19 ,20			CK73EB1C225K	CHIP C 2.2UF K		C120,121			CC73FCH1H100D	CHIP C 10PF D	
C21			CE04DW1C220M	ELECTRO 22UF 16WV		C122			CC73FCH1H271J	CHIP C 270PF J	
C22			CK73FB1H223K	CHIP C 0.022UF K		C126			C90-2594-05	ELECTRO 10UF 10WV	
C23			CK73FB1H103K	CHIP C 0.010UF K		C130			C90-2594-05	ELECTRO 10UF 10WV	E1
C24			CE04CW1E100M	ELECTRO 10UF 25WV		C131			CC73FCH1H471J	CHIP C 470PF J	E1
C25 ,26			CK73FB1E473K	CHIP C 0.047UF K		C132			CC73FCH1H121J	CHIP C 120PF J	E1
C27			C90-2598-05	ELECTRO 3.3UF 25WV		C133			CC73FCH1H060D	CHIP C 6.0PF D	E1
C28			CK73FB1E683K	CHIP C 0.068UF K		C134,135			CC73FSL1H122J	CHIP C 1200PF J	E1
C29			C90-2602-05	ELECTRO 0.10UF 50WV		C136			CC73FCH1H180J	CHIP C 18PF J	E1
C30			CK73FB1H102K	CHIP C 1000PF K		C137			CC73FCH1H471J	CHIP C 470PF J	E1
C31 ,32			CK73FB1H103K	CHIP C 0.010UF K		C138			CC73FCH1H820J	CHIP C 82PF J	E1
C33			CE04CW0J470M	ELECTRO 47UF 6.3WV		C139			CC73FSL1H102J	CHIP C 1000PF J	E1
C34			CK73FB1H103K	CHIP C 0.010UF K		C140			CK73FB1H223K	CHIP C 0.022UF K	E1
C35			CC73FCH1H240J	CHIP C 24PF J		C141			CC73FSL1H222J	CHIP C 2200PF J	E1
C36			CC73FCH1H270J	CHIP C 27PF J		C142			CK73FB1H822K	CHIP C 8200PF K	E1
C37			CK73EB1C105K	CHIP C 1.0UF K		C144			CK73FB1H103K	CHIP C 0.010UF K	
C38			CK73FB1H102K	CHIP C 1000PF K	E1	C145			CC73FCH1H471J	CHIP C 470PF J	E1
C38			CK73FB1H472K	CHIP C 4700PF K	K	C146			CK73FB1H103K	CHIP C 0.010UF K	
C39			CK73FB1H103K	CHIP C 0.010UF K		C147			CE04NW1A101M	ELECTRO 100UF 10WV	
C40			CK73EB1C225K	CHIP C 2.2UF K		C148			CK73FB1E273K	CHIP C 0.027UF K	
C42 -46			C90-2595-05	ELECTRO 4.7UF 16WV		C149			CK73EB1C105K	CHIP C 1.0UF K	E1
C50			CK73FB1C104K	CHIP C 0.10UF K		C151			CK73FB1H103K	CHIP C 0.010UF K	
C51			CK73FB1H103K	CHIP C 0.010UF K		C153			CK73FB1H103K	CHIP C 0.010UF K	
C52			C93-1054-05	CHIP C 0.012UF K		C500			C90-2608-05	ELECTRO 1.0UF 50WV	
C54			CC73FCH1H121J	CHIP C 120PF J		C502			C90-2980-05	ELECTRO 220UF 16WV	
C55			CK73FB1C823K	CHIP C 0.082UF K		C503			CK73FB1H332K	CHIP C 3300PF K	
C56			CK73FB1C104K	CHIP C 0.10UF K		C507,508			CE04CW1C220M	ELECTRO 22UF 16WV	
C57			CK73EB1C105K	CHIP C 1.0UF K		C509,510			C90-2597-05	ELECTRO 10UF 16WV	
C58			CK73FB1H183K	CHIP C 0.018UF K		C511,512			CC73FSL1H102J	CHIP C 1000PF J	
C59			CK73FB1H103K	CHIP C 0.010UF K		C513			CK73EB1C474K	CHIP C 0.47UF K	
C60			CE04CW1A470M	ELECTRO 47UF 10WV		C514			CK73FB1E473K	CHIP C 0.047UF K	
C61			C90-2600-05	ELECTRO 2.2UF 35WV		C515-518			C90-2597-05	ELECTRO 10UF 16WV	
C62			CK73FB1H103K	CHIP C 0.010UF K		C519,520			CK73FB1C104K	CHIP C 0.10UF K	
C63			C90-2606-05	ELECTRO 0.47UF 50WV		C521			CK73FB1H103K	CHIP C 0.010UF K	E1
C64			C90-2608-05	ELECTRO 1.0UF 50WV		C522-524			CK73FB1H103K	CHIP C 0.010UF K	
C65 ,66			C90-2533-05	ELECTRO 2.2UF 16WV		C526			CK73FB1H103K	CHIP C 0.010UF K	
C69 -76			CK73FB1C274K	CHIP C 0.27UF K		CN1			E40-5066-05	PIN ASSY	
C77 ,78			CK73FB1C104K	CHIP C 0.10UF K		CN2			E40-3299-05	PIN ASSY	
C79 ,80			CC73FSL1H102J	CHIP C 1000PF J		CN3			E40-3252-05	PIN ASSY	
C81 ,82			CE04CW1C220M	ELECTRO 22UF 16WV		CN4			E40-3261-05	PIN ASSY	
C83 ,84			C90-2533-05	ELECTRO 2.2UF 16WV		CN5			E40-9287-05	PIN ASSY	
C85 ,86			CE04CW1C220M	ELECTRO 22UF 16WV		CN6			E40-9557-05	FLAT CABLE CONNECTOR	
C87 ,88			CC73FSL1H102J	CHIP C 1000PF J		CN7			E40-5029-05	FLAT CABLE CONNECTOR	
C89 -92			C90-2597-05	ELECTRO 10UF 16WV		CN8			E40-3250-05	PIN ASSY	
C95 -98			C90-5296-05	NP-ELECT 0.22UF 50WV		△ J1	3D		E58-0836-05	RECTANGULAR RECEPTACLE	
C99			C90-2935-05	ELECTRO 1.0UF 50WV		WH1	2D		E30-4440-05	CORD WITH PLUG	
C100			C90-2608-05	ELECTRO 1.0UF 50WV		WH1	2D	*	E30-4804-05	CORD WITH PLUG	
C101			CE04CW1A101M	ELECTRO 100UF 10WV		L1			L40-4795-34	SMALL FIXED INDUCTOR (4.7UH)	
C102			C90-2608-05	ELECTRO 1.0UF 50WV		L2			L40-2205-34	SMALL FIXED INDUCTOR (22UH)	
C112,113			C90-2606-05	ELECTRO 0.47UF 50WV		L3 -7			L40-4795-34	SMALL FIXED INDUCTOR (4.7UH)	
C114			CE04CW0J470M	ELECTRO 47UF 6.3WV		L8			L33-1039-05	LINE FILTER COIL (52MH)	
C115,116			CK73FB1C224K	CHIP C 0.22UF K							

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# KMD-PS971R/X92

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(X25-848x-xx)

Ref. No.	A d d	N e w	Parts No.	Description	Desti- nation	Ref. No.	A d d	N e w	Parts No.	Description	Desti- nation
L9			L39-1004-05	TRAP COIL		R43 -45			RK73EB2B470J	CHIP R 47 J 1/8W	
L10			L40-4795-34	SMALL FIXED INDUCTOR (4.7UH)		R46			RK73EB2B222J	CHIP R 2.2K J 1/8W	
L24			L33-1121-05	CHOKE COIL (180UH)		R47 ,48			RK73EB2B472J	CHIP R 4.7K J 1/8W	
L50			L92-0075-05	CHIP FERRITE		R50 ,51			RK73FB2A123J	CHIP R 12K J 1/10W	
X1			L78-0683-05	RESONATOR (12.0MHZ)		R52			RK73FB2A562J	CHIP R 5.6K J 1/10W	
X2		*	L77-2738-05	CRYSTAL RESONATOR (32.768KHZ)		R53			RK73GB1J223J	CHIP R 22K J 1/16W	
X3			L77-2002-05	CRYSTAL RESONATOR (4.332MHZ)		R54			RD14DB2H332J	SMALL-RD 3.3K J 1/2W	
S	2D		N83-3005-46	PAN HEAD TAPTITE SCREW		R55 ,56			RK73EB2B104J	CHIP R 100K J 1/8W	
T	2D		N35-3010-46	BINDING HEAD MACHINE SCREW		R57			RK73FB2A183J	CHIP R 18K J 1/10W	
V	2D		N83-3012-46	PAN HEAD TAPTITE SCREW		R58			RK73GB1J104J	CHIP R 100K J 1/16W	
W	2D		N86-2606-46	BINDING HEAD TAPTITE SCREW		R60			RK73FB2A104J	CHIP R 100K J 1/10W	E1
CP2			R90-0724-05	MULTI-COMP 1K X4		R61			RK73FB2A104J	CHIP R 100K J 1/10W	K
CP3 -7			R90-0725-05	MULTI-COMP 1K X2		R62			RK73FB2A104J	CHIP R 100K J 1/10W	E1
CP9			R90-0725-05	MULTI-COMP 1K X2		R63			RK73FB2A104J	CHIP R 100K J 1/10W	K
CP11			R90-1019-05	MULTI-COMP 100 X2		R65			RK73FB2A104J	CHIP R 100K J 1/10W	
CP12			R90-1013-05	MULTI-COMP 2.2K X2		R66			RK73FB2A222J	CHIP R 2.2K J 1/10W	
R1			RK73FB2A223J	CHIP R 22K J 1/10W		R67			RK73GB1J472J	CHIP R 4.7K J 1/16W	
R2			RK73FB2A101J	CHIP R 100 J 1/10W		R70			RK73FB2A102J	CHIP R 1.0K J 1/10W	
R3			RK73FB2A223J	CHIP R 22K J 1/10W		R71			RK73FB2A472J	CHIP R 4.7K J 1/10W	
R4			RK73FB2A222J	CHIP R 2.2K J 1/10W		R72 ,73			RK73FB2A562J	CHIP R 5.6K J 1/10W	
R5			RK73EB2B221J	CHIP R 220 J 1/8W		R74			RK73FB2A223J	CHIP R 22K J 1/10W	
R6			RK73FB2A153J	CHIP R 15K J 1/10W		R76			RK73GB1J470J	CHIP R 47 J 1/16W	
R7			R92-3032-05	CHIP R 4.3K D 1/10W		R77			RK73FB2A104J	CHIP R 100K J 1/10W	
R8			R92-3052-05	METAL R 47K		R78			RK73FB2A470J	CHIP R 47 J 1/10W	
R12			RK73FB2A122J	CHIP R 1.2K J 1/10W		R83			RK73GB1J104J	CHIP R 100K J 1/16W	
R13			RK73FB2A471J	CHIP R 470 J 1/10W		R84			RK73FB2A102J	CHIP R 1.0K J 1/10W	
R14			RK73FB2A104J	CHIP R 100K J 1/10W		R89			RK73FB2A104J	CHIP R 100K J 1/10W	
R15			RK73EB2B752J	CHIP R 7.5K J 1/8W	E1	R90			RK73GB1J222J	CHIP R 2.2K J 1/16W	
R16			RK73EB2B103J	CHIP R 10K J 1/8W		R92			RK73GB1J102J	CHIP R 1.0K J 1/16W	
R17			RK73GB1J223J	CHIP R 22K J 1/16W	E1	R93			RK73FB2A222J	CHIP R 2.2K J 1/10W	E1
R18			RK73FB2A473J	CHIP R 47K J 1/10W	E1	R94			RK73FB2A223J	CHIP R 22K J 1/10W	K
R19			RK73GB1J102J	CHIP R 1.0K J 1/16W	E1	R94			RK73FB2A273J	CHIP R 27K J 1/10W	E1
R20			RK73EB2B104J	CHIP R 100K J 1/8W		R95			R92-3052-05	METAL R 47K	
R21			RK73FB2A102J	CHIP R 1.0K J 1/10W		R97			RK73FB2A102J	CHIP R 1.0K J 1/10W	E1
R22			RK73FB2A104J	CHIP R 100K J 1/10W		R99			RK73GB1J102J	CHIP R 1.0K J 1/16W	
R23			RK73FB2A750J	CHIP R 75 J 1/10W		R100			RK73FB2A102J	CHIP R 1.0K J 1/10W	
R24			RK73FB2A272J	CHIP R 2.7K J 1/10W		R101			RK73GB1J104J	CHIP R 100K J 1/16W	
R25			RK73FB2A470J	CHIP R 47 J 1/10W		R102,103			RK73FB2A470J	CHIP R 47 J 1/10W	
R26			RK73FB2A752J	CHIP R 7.5K J 1/10W		R104			RK73FB2A104J	CHIP R 100K J 1/10W	
R27			RK73GB1J102J	CHIP R 1.0K J 1/16W	E1	R105-108			RK73FB2A222J	CHIP R 2.2K J 1/10W	
R28			RK73FB2A563J	CHIP R 56K J 1/10W		R112,113			RK73GB1J222J	CHIP R 2.2K J 1/16W	
R29			RK73FB2A913J	CHIP R 91K J 1/10W		R114			RK73FB2A124J	CHIP R 120K J 1/10W	E1
R30			RK73FB2A470J	CHIP R 47 J 1/10W		R115			RK73FB2A164J	CHIP R 160K J 1/10W	K
R31			RK73FB2A103J	CHIP R 10K J 1/10W		R115			RK73FB2A102J	CHIP R 1.0K J 1/10W	E1
R32 ,33			RK73FB2A913J	CHIP R 91K J 1/10W		R121,122			RK73FB2A103J	CHIP R 10K J 1/10W	
R34			RK73FB2A472J	CHIP R 4.7K J 1/10W		R123			RK73FB2A102J	CHIP R 1.0K J 1/10W	
R35			R92-0366-05	CHIP R 560 J 1W	K	R124			RK73GB1J473J	CHIP R 47K J 1/16W	
R36			RK73FB2A223J	CHIP R 22K J 1/10W	K	R125			RK73FB2A333J	CHIP R 33K J 1/10W	
R37			RK73FB2A472J	CHIP R 4.7K J 1/10W		R126,127			RK73FB2A473J	CHIP R 47K J 1/10W	
R38			R92-0365-05	CHIP R 1.0K J 1/2W		R128			RK73FB2A821J	CHIP R 820 J 1/10W	
R39			RK73FB2A223J	CHIP R 22K J 1/10W		R129			RK73FB2A153J	CHIP R 15K J 1/10W	
R40			R92-0365-05	CHIP R 1.0K J 1/2W		R133			RK73EB2B472J	CHIP R 4.7K J 1/8W	
R41			RK73EB2B472J	CHIP R 4.7K J 1/8W		R135-139			RK73EB2B471J	CHIP R 470 J 1/8W	
R42			RK73EB2B222J	CHIP R 2.2K J 1/8W		R140			RK73EB2B472J	CHIP R 4.7K J 1/8W	
						R141,142			RK73FB2A104J	CHIP R 100K J 1/10W	

E1 : KMD-PS971R

K : KMD-X92

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# KMD-PS971R/X92

## PARTS LIST

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(X25-848x-xx)

Ref. No.	A d d	N e w	Parts No.	Description	Desti- nation
R145			RK73GB1J472J	CHIP R 4.7K J 1/16W	
R147			RK73FB2A472J	CHIP R 4.7K J 1/10W	
R148,149			RK73GB1J334J	CHIP R 330K J 1/16W	
R153,154			RK73FB2A361J	CHIP R 360 J 1/10W	
R155,156			RK73FB2A472J	CHIP R 4.7K J 1/10W	
R157,158			RK73FB2A222J	CHIP R 2.2K J 1/10W	
R159,160			RK73FB2A361J	CHIP R 360 J 1/10W	
R161,162			RK73FB2A472J	CHIP R 4.7K J 1/10W	
R163,164			RK73FB2A222J	CHIP R 2.2K J 1/10W	
R167,168			RK73FB2A103J	CHIP R 10K J 1/10W	
R169,170			RK73FB2A223J	CHIP R 22K J 1/10W	
R171,172			RK73FB2A820J	CHIP R 82 J 1/10W	
R175,176			RK73FB2A103J	CHIP R 10K J 1/10W	
R177,178			RK73FB2A223J	CHIP R 22K J 1/10W	
R179,180			RK73FB2A820J	CHIP R 82 J 1/10W	
R181-184			RK73FB2A472J	CHIP R 4.7K J 1/10W	
R185			RK73GB1J184J	CHIP R 180K J 1/16W	
R186			RK73FB2A431J	CHIP R 430 J 1/10W	
R187			RK73FB2A751J	CHIP R 750 J 1/10W	
R188			RK73FB2A303J	CHIP R 30K J 1/10W	
R189			RK73FB2A102J	CHIP R 1.0K J 1/10W	
R190			RK73FB2A101J	CHIP R 100 J 1/10W	
R191			RK73FB2A223J	CHIP R 22K J 1/10W	
R192			RK73GB1J333J	CHIP R 33K J 1/16W	
R193,194			RK73EB2B100J	CHIP R 10 J 1/8W	
R195			RK73EB2B4R7J	CHIP R 4.7 J 1/8W	
R196			RK73EB2B104J	CHIP R 100K J 1/8W	
R200			RK73EB2B222J	CHIP R 2.2K J 1/8W	
R201-203			RK73GB1J102J	CHIP R 1.0K J 1/16W	
R216			RK73EB2B220J	CHIP R 22 J 1/8W	E1
R217-220			RK73FB2A103J	CHIP R 10K J 1/10W	E1
R221			RK73FB2A823J	CHIP R 82K J 1/10W	E1
R222			RK73FB2A272J	CHIP R 2.7K J 1/10W	E1
R223			RK73FB2A333J	CHIP R 33K J 1/10W	E1
R224			RK73FB2A153J	CHIP R 15K J 1/10W	E1
R225			RK73FB2A103J	CHIP R 10K J 1/10W	E1
R226			RK73FB2A562J	CHIP R 5.6K J 1/10W	E1
R227			RK73FB2A103J	CHIP R 10K J 1/10W	E1
R228			RK73FB2A104J	CHIP R 100K J 1/10W	E1
R229			RK73FB2A103J	CHIP R 10K J 1/10W	E1
R230			RK73FB2A222J	CHIP R 2.2K J 1/10W	E1
R231			RK73FB2A562J	CHIP R 5.6K J 1/10W	E1
R232			RK73GB1J272J	CHIP R 2.7K J 1/16W	
R233			RK73FB2A223J	CHIP R 22K J 1/10W	
R234			RK73EB2B102J	CHIP R 1.0K J 1/8W	
R235			RK73FB2A223J	CHIP R 22K J 1/10W	
R236			RK73EB2B102J	CHIP R 1.0K J 1/8W	
R237			RK73FB2A105J	CHIP R 1.0M J 1/10W	E1
R523			R92-3022-05	METAL R 750 D 1/10W	
R524			R92-3026-05	METAL R 1.5K	
R525			R92-3029-05	METAL R 2.4K	
R526			RK73FB2A222J	CHIP R 2.2K J 1/10W	
R527			RK73FB2A473J	CHIP R 47K J 1/10W	
R530-532			RK73FB2A104J	CHIP R 100K J 1/10W	
R533,534			RK73FB2A472J	CHIP R 4.7K J 1/10W	
Ref. No.	A d d	N e w	Parts No.	Description	Desti- nation
R537,538			RK73FB2A472J	CHIP R 4.7K J 1/10W	
R539,540			RK73FB2A361J	CHIP R 360 J 1/10W	
R541,542			RK73FB2A222J	CHIP R 2.2K J 1/10W	
R543,544			RK73FB2A103J	CHIP R 10K J 1/10W	
R545,546			RK73FB2A223J	CHIP R 22K J 1/10W	
R547,548			RK73FB2A820J	CHIP R 82 J 1/10W	
R549			RK73FB2A473J	CHIP R 47K J 1/10W	
R550			RK73EB2B102J	CHIP R 1.0K J 1/8W	
R552			RK73FB2A222J	CHIP R 2.2K J 1/10W	
R553			RK73FB2A153J	CHIP R 15K J 1/10W	E1
R558			RK73FB2A561J	CHIP R 560 J 1/10W	
R599			RK73FB2A104J	CHIP R 100K J 1/10W	
R600			RK73FB2A473J	CHIP R 47K J 1/10W	
R601			RK73FB2A472J	CHIP R 4.7K J 1/10W	
VR1			R32-0229-05	SEMI FIXED VARIABLE RESISTOR	E1
W1 -3			R92-2052-05	CHIP R 0 J 1/10W	K
W4			R92-2052-05	CHIP R 0 J 1/10W	E1
W5 ,6			R92-2052-05	CHIP R 0 J 1/10W	K
PH1			T95-0231-05	OPTO ISOLATOR	
D1			RM10ZLF	DIODE	
D2			AM01Z	DIODE	
D3			MA4056(N)-M	ZENER DIODE	
D5			MA3220-H	ZENER DIODE	
D6			HZM4.7N(B2)	ZENER DIODE	E1
D7			MA4110(N)-M	ZENER DIODE	
D8			MA4056(N)-M	ZENER DIODE	
D11 ,12			AM01Z	DIODE	
D13			DAP202K	DIODE	
D13			KDS181	DIODE	
D13			MA152WA	DIODE	
D16 ,17			MA3062WA	ZENER DIODE	
D19			MA4056(N)-M	ZENER DIODE	
D20			MA4062(N)-M	ZENER DIODE	
D21			DAN202K	DIODE	
D21			KDS184	DIODE	
D21			MA152WK	DIODE	
D22			DA204K	DIODE	
D22			KDS226	DIODE	
D23 ,24			RD6.8MW	ZENER DIODE	
D25 -27			DAP202K	DIODE	
D25 -27			KDS181	DIODE	
D25 -27			MA152WA	DIODE	
D28 ,29			RD6.8MW	ZENER DIODE	
D31			DAN202K	DIODE	E1
D31			KDS184	DIODE	E1
D31			MA152WK	DIODE	E1
D33			SA-C2012-101TB	SURGE ABSORBER	
D34			DAN202K	DIODE	
D34			KDS184	DIODE	
D34			MA152WK	DIODE	
D35 -42			1SR154-400	DIODE	K
D43			1SR154-400	DIODE	
D44 -48			DA204K	DIODE	
D44 -48			KDS226	DIODE	

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# KMD-PS971R/X92

## PARTS LIST

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(X25-848x-xx)

Ref. No.	A d d	N e w	Parts No.	Description	Desti- nation	Ref. No.	A d d	N e w	Parts No.	Description	Desti- nation
D49			MA3062WA	ZENER DIODE		Q16			2SC2412K	TRANSISTOR	
D89			U1GWJ44	DIODE		Q16			2SD601A	TRANSISTOR	
D90			DAP202K	DIODE		Q17			2SB709A	TRANSISTOR	
D90			KDS181	DIODE		Q18			2SC2412K	TRANSISTOR	
D90			MA152WA	DIODE		Q18			2SD601A	TRANSISTOR	
D92			MA3056-M	ZENER DIODE		Q19			2SB709A	TRANSISTOR	
D94			DA204K	DIODE		Q20			2SC2412K	TRANSISTOR	
D94			KDS226	DIODE		Q20			2SD601A	TRANSISTOR	
D95			DAP202K	DIODE		Q21			2SB1277(Q,R)	TRANSISTOR	K
D95			KDS181	DIODE		Q22			DTC114EK	DIGITAL TRANSISTOR	K
D95			MA152WA	DIODE		Q22			UN2211	DIGITAL TRANSISTOR	K
IC1			UPD784217GC106	MI-COM IC		Q23			2SB1277(Q,R)	TRANSISTOR	
IC2			TDA7400	ANALOGUE IC		Q24			2SB709A	TRANSISTOR	
IC3			M5237ML	IC(VOLTAGE REGULATOR)		Q25			DTA124EK	DIGITAL TRANSISTOR	
IC4	3D		TDA7386	ANALOGUE IC		Q25			KRA103S	DIGITAL TRANSISTOR	
IC5			TDA7401	ANALOGUE IC		Q25			UN2112	DIGITAL TRANSISTOR	
IC6			S-80830ANNP	MOS-IC		Q26			DTC114EK	DIGITAL TRANSISTOR	
IC7			BR24C01AF	MEMORY IC		Q26			UN2211	DIGITAL TRANSISTOR	
IC7			M24C01-WMN6T	MEMORY IC		Q28 ,29			2SC2412K	TRANSISTOR	
IC8			TC74HC02AF	IC		Q28 ,29			2SD601A	TRANSISTOR	
IC9			LB1930M	ANALOGUE IC		Q30			DTA124EK	DIGITAL TRANSISTOR	
IC11			NJM4565M-TE2	ANALOGUE IC		Q30			KRA103S	DIGITAL TRANSISTOR	
IC14			TC7662BEOA	ANALOGUE IC		Q30			UN2112	DIGITAL TRANSISTOR	
IC15,16			NJM4565M-TE2	ANALOGUE IC		Q32			2SC2412K	TRANSISTOR	
IC17			TDA7479D	ANALOGUE IC		Q32			2SD601A	TRANSISTOR	
IC18			NJM4565M-TE2	ANALOGUE IC		Q33			DTC124EK	DIGITAL TRANSISTOR	
IC19			NJM4565M-TE2	ANALOGUE IC	E1	Q33			KRC103S	DIGITAL TRANSISTOR	
IC20			LM2675M-ADJ	ANALOGUE IC		Q33			UN2212	DIGITAL TRANSISTOR	
Q1			2SB1565(E,F)	TRANSISTOR		Q34 -37			2SC2412K	TRANSISTOR	
Q2			2SC2412K	TRANSISTOR		Q34 -37			2SD601A	TRANSISTOR	
Q2			2SD601A	TRANSISTOR		Q38			DTC114YK	DIGITAL TRANSISTOR	
Q3			2SB709A	TRANSISTOR		Q38		*	KRC107S	DIGITAL TRANSISTOR	
Q4			2SB1565(E,F)	TRANSISTOR		Q38			UN2214	DIGITAL TRANSISTOR	
Q5			DTA124EK	DIGITAL TRANSISTOR		Q42			2SC2412K	TRANSISTOR	E1
Q5			KRA103S	DIGITAL TRANSISTOR		Q42			2SD601A	TRANSISTOR	E1
Q5			UN2112	DIGITAL TRANSISTOR		Q43			DTC114TK	DIGITAL TRANSISTOR	E1
Q6			DTC124EK	DIGITAL TRANSISTOR		Q43			UN2215	DIGITAL TRANSISTOR	E1
Q6			KRC103S	DIGITAL TRANSISTOR		Q44			DTA124EK	DIGITAL TRANSISTOR	E1
Q6			UN2212	DIGITAL TRANSISTOR		Q44			KRA103S	DIGITAL TRANSISTOR	E1
Q8			DTA124EK	DIGITAL TRANSISTOR		Q44			UN2112	DIGITAL TRANSISTOR	E1
Q8			KRA103S	DIGITAL TRANSISTOR		Q45			DTC124EK	DIGITAL TRANSISTOR	E1
Q8			UN2112	DIGITAL TRANSISTOR		Q45			KRC103S	DIGITAL TRANSISTOR	E1
Q9			DTC124EK	DIGITAL TRANSISTOR		Q45			UN2212	DIGITAL TRANSISTOR	E1
Q9			KRC103S	DIGITAL TRANSISTOR		Q48			2SB1188(Q,R)	TRANSISTOR	
Q9			UN2212	DIGITAL TRANSISTOR		Q49			DTC124EK	DIGITAL TRANSISTOR	
Q10			2SB1443	TRANSISTOR		Q49			KRC103S	DIGITAL TRANSISTOR	
Q11			2SC2412K	TRANSISTOR		Q49			UN2212	DIGITAL TRANSISTOR	
Q11			2SD601A	TRANSISTOR		Q50			2SB1188(Q,R)	TRANSISTOR	
Q12			DTC144EK	DIGITAL TRANSISTOR		Q51			DTC124EK	DIGITAL TRANSISTOR	
Q12			KRC104S	DIGITAL TRANSISTOR		Q51			KRC103S	DIGITAL TRANSISTOR	
Q12			UN2213	DIGITAL TRANSISTOR		Q51			UN2212	DIGITAL TRANSISTOR	
Q13			2SB1443	TRANSISTOR		Q52			DTC144EK	DIGITAL TRANSISTOR	
Q14			2SC2412K	TRANSISTOR		Q52			KRC104S	DIGITAL TRANSISTOR	
Q14			2SD601A	TRANSISTOR		Q52			UN2213	DIGITAL TRANSISTOR	
Q15			2SB709A	TRANSISTOR		Q53 ,54			2SC2412K	TRANSISTOR	

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Ref. No.	Added	NEW	Parts No.	Description	Destination
Q53 ,54			2SD601A	TRANSISTOR	
Q56			DTC144EK	DIGITAL TRANSISTOR	
Q56			KRC104S	DIGITAL TRANSISTOR	
Q56			UN2213	DIGITAL TRANSISTOR	
Q57			DTA124EK	DIGITAL TRANSISTOR	
Q57			KRA103S	DIGITAL TRANSISTOR	
Q57			UN2112	DIGITAL TRANSISTOR	
Q58			DTA123JK	DIGITAL TRANSISTOR	
Q59			2SB709A	TRANSISTOR	
TH1			PTH9C42BD471Q	POSITIVE RESISTOR	
A1	3D		X86-3100-10	TUNER UNIT	K
A1	3D	*	X86-3222-70	TUNER UNIT	E1
<b>DAUGHTER UNIT (X89-2410-10)</b>					
C1			C90-2966-05	ELECTRO 100UF	16WV
C2			CK73FB1H103K	CHIP C 0.010UF	K
C3			C90-2966-05	ELECTRO 100UF	16WV
C4			CK73FB1H103K	CHIP C 0.010UF	K
C5			C90-2984-05	ELECTRO 47UF	50WV
C6			CK73FB1H103K	CHIP C 0.010UF	K
C7			CK73EB1C225K	CHIP C 2.2UF	K
CN1			E40-3250-05	PIN ASSY	
L1			L33-1029-05	SMALL FIXED INDUCTOR (22UH)	
R1			RK73EB2B473J	CHIP R 47K	J 1/8W
R2			RK73FB2A152J	CHIP R 1.5K	J 1/10W
R3			RK73EB2B103J	CHIP R 10K	J 1/8W
R4			R92-2104-05	CHIP R 2.2	J 1W
D1			MA4100-L	ZENER DIODE	
D2			MA4051(N)-M	ZENER DIODE	
D3			DA204K	DIODE	
D3			KDS226	DIODE	
Q1			2SB1184	TRANSISTOR	
Q2			2SC2412K	TRANSISTOR	
Q2			2SD601A	TRANSISTOR	
A1	2D	*	W02-3232-05	ELECTRIC CIRCUIT MODULE	

Ref. No.	A d d	N e w	Parts No.	Description	Desti- nation

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K : KMD-X92

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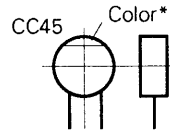
# KMD-PS971R/X92

## PARTS DESCRIPTIONS

### CAPACITORS

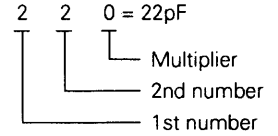
CC 45 TH 1H 220 J  
1 2 3 4 5 6

- 1 = Type ... ceramic, electrolytic, etc. 4 = Voltage rating  
2 = Shape ... round, square, ect. 5 = Value  
3 = Temp. coefficient 6 = Tolerance



#### Capacitor value

010 = 1pF  
100 = 10pF  
101 = 100pF  
102 = 1000pF = 0.001μF  
103 = 0.01μF



#### Temperature coefficient

1st Word	C	L	P	R	S	T	U
Color*	Black	Red	Orange	Yellow	Green	Blue	Violet
ppm/°C	0	-80	-150	-220	-330	-470	-750

2nd Word	G	H	J	K	L
ppm/°C	±30	±60	±120	±250	±500

Example : CC45TH = -470 ± 60ppm/°C

#### Tolerance (More than 10pF)

Code	C	D	G	J	K	M	X	Z	P	No code
(%)	±0.25	±0.5	±2	±5	±10	±20	+40 -20	+80 -20	+100 -0	More than 10μF - 10 ~ +50 Less than 4.7μF -10 ~ +75

#### (Less than 10pF)

Code	B	C	D	F	G
(pF)	±0.1	±0.25	±0.5	±1	±2

#### Voltage rating

2nd word 1st word	A	B	C	D	E	F	G	H	J	K	V
0	1.0	1.25	1.6	2.0	2.5	3.15	4.0	5.0	6.3	8.0	-
1	10	12.5	16	20	25	31.5	40	50	63	80	35
2	100	125	160	200	250	315	400	500	630	800	-
3	1000	1250	1600	2000	2500	3150	4000	5000	6300	8000	-

#### Chip capacitors

(EX) C C 7 3 F S L 1 H 0 0 0 J  
1 2 3 4 5 6 7  
(Chip) (CH, RH, UJ, SL)

(EX) C K 7 3 F F 1 H 0 0 0 Z  
1 2 3 4 5 6 7  
(Chip) (B, F)

Refer to the table above.

1 = Type  
2 = Shape  
3 = Dimension  
4 = Temp. coefficient  
5 = Voltage rating  
6 = Value  
7 = Tolerance

#### Dimension (Chip capacitors)

Dimension code	L	W	T
Empty	5.6 ± 0.5	5.0 ± 0.5	Less than 2.0
A	4.5 ± 0.5	3.2 ± 0.4	Less than 2.0
B	4.5 ± 0.5	2.0 ± 0.3	Less than 2.0
C	4.5 ± 0.5	1.25 ± 0.2	Less than 1.25
D	3.2 ± 0.4	2.5 ± 0.3	Less than 1.5
E	3.2 ± 0.2	1.6 ± 0.2	Less than 1.25
F	2.0 ± 0.3	1.25 ± 0.2	Less than 1.25
G	1.6 ± 0.2	0.8 ± 0.2	Less than 1.0

### RESISTORS

#### Chip resistor (Carbon)

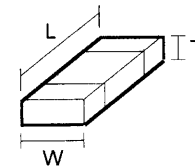
(EX) R K 7 3 E B 2 B 0 0 0 J  
1 2 3 4 5 6 7  
(Chip) (B,F)

#### Carbon resistor (Normal type)

(EX) R D 1 4 B B 2 C 0 0 0 J  
1 2 3 4 5 6 7

- 1 = Type 5 = Rating wattage  
2 = Shape 6 = Value  
3 = Dimension 7 = Tolerance  
4 = Temp. coefficient

#### Dimension



#### Dimension (Chip resistor)

Dimension code	L	W	T
E	3.2 ± 0.2	1.6 ± 0.2	1.0
F	2.0 ± 0.3	1.25 ± 0.2	1.0
G	1.6 ± 0.2	0.8 ± 0.2	0.5 ± 0.1

#### Rating wattage

Code	Wattage	Code	Wattage	Code	Wattage
1J	1/16W	2C	1/6W	3A	1W
2A	1/10W	2E	1/4W	3D	2W
2B	1/8W	2H	1/2W		

# KMD-PS971R/X92

## SPECIFICATIONS

		KMD-PS971R (E)	KMD-X92 (K)
		MASK	MASK
FM	Frequency Range (Frequency Step)	87.5MHz-108.0MHz (50KHz)	87.9MHz-107.9MHz (200KHz)
	Channel Space Selection	-	50KHz/200KHz
	Usable Sensitivity (S/N 26dB)	9.3dBf (0.7μV/75Ω)	9.3dBf (0.8μV/75Ω)
	Quieting Sensitivity (S/N 46dB)	15.2dBf (1.6μV/75Ω)	15.2dBf (1.6μV/75Ω)
	Frequency Response (±3.0dB)	30Hz-15KHz	30Hz-15KHz
	S/N	65dB (MONO)	70dB (MONO)
	Selectivity	≥80dB (±400KHz)	≥80dB (±400KHz)
	Stereo Separation	35dB (1KHz)	40dB (1KHz)
MW or AM	Frequency Range (Frequency Step)	531KHz-1611KHz (9KHz)	530KHz-1700KHz (10KHz)
	Channel Space Selection	-	9KHz/10KHz
	Usable Sensitivity	28dBμ (25μV)	28dBμ (25μV)
LW	Frequency Range	153KHz-281KHz	-
	Usable Sensitivity (S/N 20dB)	45μV	-
MD	Laser Diode	GaAlAs (λ=780nm)	GaAlAs (λ=780nm)
	Digital Filter (D/A)	8 Times Over Sampling	8 Times Over Sampling
	D/A Converter	1 Bit	1 Bit
	Spindle Speed	400-900(CLV)	400-900(CLV)
	Wow & Flutter	Below Mesurable Limit	Below Mesurable Limit
	Frequency Response	20-20KHz (±2dB)	20-20KHz (±2dB)
	Total Harmonic Distortion	0.01% (1KHz)	0.01% (1KHz)
	S/N Ratio	90dB (1KHz)	90dB (1KHz)
	Dinamic Range	90dB	90dB
	Channel Separation	85dB	85dB
Preout Level / Load (Unbalanced)		4500mV/10KΩ (CD/CD-CH)	4500mV/10KΩ (CD/CD-CH)
Preout Impedance		80Ω	80Ω
AMPLIFIER	Maximum Power	45W x4	45W x4
	Power DIN45324, +B=14.4V	28W x4	-
	Full Bandwidth Power (at less than 1% THD)	-	22W x4
TONE	Bass	100Hz ±10dB	100Hz ±10dB
	Treble	10KHz ±10dB	10KHz ±10dB
GENERAL	Operating Voltage (11V-16V allowable)	14.4V	14.4V
	Current Consumption	10A	10A
	Installation Size (Width)	182mm	182mm
	(Height)	53mm	53mm
	(Depth)	162mm	162mm
Weight		1.8Kg	1.8Kg

**KENWOOD** follows a policy of continuous advancements in development. For this reason specifications may be changed without notice.

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